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VIA ELECTRONIC FILING

Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th Street, S.W.
Washington, DC 20554

Ex Parte Presentation

WT Docket No. 12-357
Service Rules for the Advanced Wireless Services H Block

Dear Ms. Dortch:

T-Mobile US, Inc. ("T-Mobile") hereby submits the attached analysis (the "Testing Report") of testing conducted by 7Layers AG ("7Layers") for inclusion in the record of the above-referenced proceeding in which the Commission has proposed to make available for licensing the 1915-1920 MHz and 1995-2000 MHz bands (together the "H Block") for mobile broadband services.[1/] 7Layers conducted the testing on behalf of AT&T and T-Mobile to determine whether use of the H Block would cause harmful interference to Personal Communications Service ("PCS") handsets operating at the 1850-1915 MHz band.

As explained in its comments, T-Mobile applauds the Commission for taking the steps necessary to make additional spectrum, including the H Block, available for mobile broadband services in accordance with the Spectrum Act.[2/] However, T-Mobile cautioned that there is a risk of harmful interference from Lower H Block operations to PCS handsets, a risk that the Spectrum Act itself contemplates. T-Mobile is particularly concerned about this risk because it is the licensee of PCS A Block spectrum covering approximately 100 million people, of which approximately 50 million are served by the "bottom" 5 megahertz of the A Block – the spectrum that is closest to the H Block and would be most susceptible to interference from H Block out-of-band emissions ("OOBE"). While the Commission previously addressed this issue in 2004 when it first proposed service rules for the H Block, technology has advanced since that time.

1/ *See Service Rules for the Advanced Wireless Services H Block—Implementing Section 6401 of the Middle Class Tax Relief and Job Creation Act of 2012 Related to the 1915-1920 MHz and 1995-2000 MHz Bands*, Notice of Proposed Rulemaking, 27 FCC Rcd 16258 (2012).

2/ *See* Comments of T-Mobile USA, Inc., WT Docket No. 12-357 (filed Feb. 6, 2013) ("T-Mobile Comments"); Reply Comments of T-Mobile USA, Inc., WT Docket No. 12-357 (filed March 7, 2013).

Accordingly, T-Mobile suggested that additional testing should be conducted to refresh the record and to determine the appropriate interference protections needed for PCS operations before final rules are adopted.

The Testing Report assumes the use of H Block LTE devices that comply with a –66 dBm/MHz OOBE limit and operate with a maximum of power of +23 dBm (+/- 2 dB), which are parameters suggested by Sprint and Verizon.[3/] The Testing Report concludes that operations under these parameters would be sufficient to protect UMTS and LTE devices in the PCS band from mobile operations in the Lower H Block.[4/] While T-Mobile generally supports adoption of rules incorporating these limits, it notes that GSM devices may not be adequately protected. In particular, testing displayed noticeable performance impairment when the H Block device transmitted at a power level within 2 dB from its nominal maximum output power of 23 dBm and a relatively poor rejection of OOBE interference at a separation distance of 1 meter.[5/]

Such impairment to GSM devices may have an adverse impact on T-Mobile's customers. As it previously explained, T-Mobile currently utilizes UMTS and GSM technology in its PCS spectrum and will continue to do so for the foreseeable future.[6/] Accordingly, T-Mobile asks the Commission to require future H Block licensees to provide notification to PCS A Block licensees when they turn on service in the H Block on a market-by-market basis. Such a rule would enable full use of the H Block for LTE service while also assisting PCS licensees in network planning to reduce the probability of interference.

If there are any questions regarding the foregoing, please contact the undersigned directly.

Respectfully submitted,

/s/ Kathleen O'Brien Ham

Kathleen O'Brien Ham
Vice President, Federal Regulatory Affairs

Attachment

3/ *See* Letter from Tamara Preiss, Verizon, to Marlene Dortch, FCC, WT Docket No. 12-357 (dated April 18, 2013); Reply Comments of Sprint Nextel Corp., WT Docket No. 12-357, at 11 (filed March 7, 2013). The power limit of +23 dBm (+/- 2 dB) is equivalent to the power limit of +25 dBm referenced in Verizon's April 18 letter.

4/ *See* Testing Report at 1.

5/ *See id.* at 1-2.

6/ *See* T-Mobile Comments at 2, 5 (noting that T-Mobile is focusing its efforts on using LTE in its Advanced Wireless Service spectrum first).